

is a vague and hugely overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents plaintiffs' counsel and their expert(s) may view as bearing on the broad issues of economies of scale and fall out benefits.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 91:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent PIM, PRM, and/or other affiliated Putnam entities share with any of the Putnam Mutual Funds any Economies of Scale Benefits and/or Fall-Out Benefits they realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 91:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to whether Defendants "share" any economies of scale and/or fall-out benefits is a vague and overbroad category, which purports to place on Defendants the burden of making subjective judgments as to which categories of documents may bear on those matters.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees

during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 92:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any quantification of Economies of Scale Benefits and/or Fall-Out Benefits that PIM, PRM, and/or other affiliated Putnam entities realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 92:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, all documents generated during the period January 1, 2002 to June 30, 2005 containing numerical analysis of economies of scale, including their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees).

REQUEST FOR PRODUCTION NO. 93:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether PIM, PRM, or other affiliated Putnam entities have failed to share any Economies of Scale Benefits and/or Fall-Out Benefits with any of the Putnam Mutual Funds to a degree that has been inequitable, unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any of the Putnam Mutual Funds or their shareholders.

RESPONSE TO REQUEST FOR PRODUCTION NO. 93:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to whether Defendants "have failed to share" any economies of scale and/or fall-out benefits to an "inequitable" degree is a vague, overbroad and argumentative category, which purports to place on Defendants the burden of making subjective judgments as to which categories of documents might bear on those matters, even though that burden is properly borne by plaintiffs' counsel and their expert(s).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 94:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any model schedules for Management Fees developed by, or on behalf of, PIM, PRM, and/or any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds, including any earlier versions, drafts, or proposals of or for such model fee schedules.

RESPONSE TO REQUEST FOR PRODUCTION NO. 94:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request).

REQUEST FOR PRODUCTION NO. 95:

All documents and tangible things in your possession, custody, or control that reflect, concern, or relate to any comparisons or contrasts drawn between the concepts of investment performance on the one hand, and investment process on the other hand, including investment process as it relates to research and/or decision-making.

RESPONSE TO REQUEST FOR PRODUCTION NO. 95:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; Defendants do not understand what documents this request seeks.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search, all documents generated from January 1, 2002 through June 30, 2005 comparing and/or contrasting "investment performance," on the one hand, and "investment process," on the other hand.

REQUEST FOR PRODUCTION NO. 96:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any explanations, characterizations, or descriptions of the investment process that has been or may be followed by PIM in providing services to any of the Putnam Mutual Funds, including the investment process as it relates to research and/or decision-making.

RESPONSE TO REQUEST FOR PRODUCTION NO. 96:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to the

extent comprehensible, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 97:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any indemnifications provided by PIM, PRM, or other affiliated Putnam entities to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 97:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce any document containing an indemnification by PRM and/or PIM to any fund at issue in effect during the period January 1, 2002 through June 30, 2005.

REQUEST FOR PRODUCTION NO. 98:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any policies, practices, or procedures that have been or may be followed by PIM, PRM, or other affiliated Putnam entities with regard to making disclosures to shareholders and/or to the public regarding any Management Fees and/or 12b-1 Fees charged to any Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 98:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 99:

All documents and tangible things in your possession, custody, or control that constitute or reflect any of the investment programs that PIM has proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 99:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its use of the undefined and vague term of "investment programs."

Subject to and without waiving the foregoing objections, Defendants will make a diligent effort to identify and produce documents that describe the nature of the advisory services provided to each of the funds at issue, to the extent generated from January 1, 2002 through June 30, 2005.

REQUEST FOR PRODUCTION NO. 100:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the development or formulation of each of the investment programs that PIM has proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 100:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its use of the undefined and vague term of "investment programs."

Subject to and without waiving the foregoing objections, Defendants will make a diligent effort to identify and produce documents that describe the nature of the advisory services provided to each of the funds at issue (including their development or formulation), to the extent generated from January 1, 2002 through June 30, 2005.

REQUEST FOR PRODUCTION NO. 101:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 101:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents that "refer" or "relate" to fee schedules is a category that is difficult to understand, and, read literally, sweepingly overbroad (it appears to call for every document in any way relating to fees).

Subject to and without waiving the foregoing objections, Defendants will produce the fee schedules applicable to each of the funds at issue during the period May 18, 2003 through June 30, 2005.

REQUEST FOR PRODUCTION NO. 102:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the development or formulation of each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 102:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and

distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 103:

All documents and tangible things in your possession, custody, or control relevant to identifying, and/or establishing the amounts of, any Management Fees or 12b-1 Fees that PIM or PRM have received from any entity other than any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 103:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to the extent comprehensible, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce documents sufficient to identify, for the January 1, 2002-through-June 30, 2005 period of time, any management and/or 12b-1 fees that PIM and/or PRM have received from any entity other than the Putnam Mutual Funds.

REQUEST FOR PRODUCTION NO. 104:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their existence: (i) their respective portfolio holdings; (ii) the amounts of their assets under management; (iii) the amounts of their Management Fees and 12b-1 Fees paid; (iv) their applicable fee schedules; (v) the costs, expenses, and expense ratios incurred by PIM, PRM, or other affiliated Putnam entities; and (vi) the profits and profit margins realized by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 104:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly

burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is duplicative of other requests, listed below, the objections to each of which Defendants incorporate herein by reference. Subject to and without waiving the foregoing objections, Defendants refer Plaintiffs to, and incorporate herein by reference, their substantive responses to the following requests:

- As to subpart (i), Request Nos. 47, 48, 131;
- As to subpart (ii), Request Nos. 47, 48, 131;
- As to subpart (iii), Request Nos. 5, 6, 26, 54;
- As to subpart (iv), Request Nos. 94, 101, 102, 111;
- As to subpart (v), Request Nos. 7, 12, 25, 67, 85, 109; and
- As to subpart (vi), Request Nos. 6, 11, 20, 24, 27, 64, 66, 86, 111, 136, 138.

REQUEST FOR PRODUCTION NO. 105:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to constitute [sic] any charters that have been or are applicable to any Boards of Trustees, or their Boards of Trustees Committees, for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 105:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its use of the words "reflect," "concern," "refer" or "relate." Defendants further object to this request on the basis that it is properly directed to counsel for the trustees, not to Defendants.

REQUEST FOR PRODUCTION NO. 106:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any policies, practices, or

procedures applicable to, and or adopted or followed by, PIM with respect to seeking and obtaining the most favorable prices and execution of trades on behalf of any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 106:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its use of the words "reflect," "concern," "refer" or "relate." It is not sensible to ask PIM and PRM for, in effect, "all documents relating to best execution," which is a fundamental part of their day-to-day business, implicating a sweeping array of individuals and documents (even day-to-day trading records). Such a request, like many others, improperly seeks to shift the burden to Defendants to identify particular categories of documents that Plaintiffs might find useful in attempting to prove their claims, when Plaintiffs are obligated to develop and articulate those categories themselves (and are capable of doing so). As with other areas of inquiry identified in plaintiffs' requests, Defendants would respond, as appropriate, to a more narrowly-tailored, specifically-articulated request or set of requests concerning best execution.

REQUEST FOR PRODUCTION NO. 107:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to the drafting, revising, and/or inclusion of: (i) the new passage entitled "Management fee considerations" that recently began to appear on Putnam's web site; and/or (ii) the new standard passages entitled "Trustee approval of management contracts" that recently began to appear in, *inter alia*, the semiannual reports published on behalf of some or all of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 107:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants understand what public statements plaintiffs refer to in this request, but do not understand what plaintiffs seek, in requesting all documents that "reflect, concern, refer or relate" to them.

Subject to and without waiving the foregoing objections, however, Defendants will produce copies of the statements themselves, and, to the extent located after diligent search, the following materials, which constitute the documentary record (and more) of the fee-review process those statements describe: Defendants' fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 108:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent any conflicts of interests do or may exist between PIM, PRM, or other affiliated Putnam entities on the one hand, and any of the Putnam Mutual Funds and/or their shareholders on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 108:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to "whether" there are conflicts of interest between any Putnam entities and the funds or shareholders is a vague and overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents might bear on such matters.

REQUEST FOR PRODUCTION NO. 109:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent the 12b-1 Fees charged by PRM or other affiliated Putnam entities have resulted in lower average expense ratios and/or lower flow volatility for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 109:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. "All documents" that "relate" to "if, how, whether, or to what extent" 12b-1 fees have resulted in lower expense ratios or flow volatility is an overly broad category of documents, which improperly seeks to place on Defendants the burden of subjectively determining what concrete types of documents Plaintiffs might find useful in exploring those complex matters. Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, documents generated during the period January 1, 2002 to June 30, 2005 that address the impact of 12b-1 fees on expense ratios and/or flow volatility, if any.

REQUEST FOR PRODUCTION NO. 110:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent the Management Fees and/or the 12b-1 Fees charged by PIM, PRM, or other affiliated Putnam entities have been or should be made transparent to actual or potential shareholders in any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 110:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it assumes, contrary to evidence, that fees are not clearly disclosed to shareholders and potential shareholders. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. The existing disclosures speak for themselves and are readily available to Plaintiffs; there is no basis in this case for discovery into internal communications about them.

REQUEST FOR PRODUCTION NO. 111:

All documents and tangible things in your possession, custody, or control that reflect, concern, or relate to any comparisons or contrasts drawn between how the profits and/or profit margins that PIM, PRM, or other affiliated Putnam

entities have realized on Management Fees and/or 12b-1 Fees charged to any of the Putnam Mutual Funds have varied across fee schedule breakpoints.

RESPONSE TO REQUEST FOR PRODUCTION NO. 111:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; as written, this request does not describe an intelligible category of documents.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search, documents generated during the period January 1, 2002 to June 30, 2005 that address the impact of alternate actual or hypothetical breakpoints on profits.

REQUEST FOR PRODUCTION NO. 112:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any investigation by any governmental, administrative, or self-regulatory body regarding the propriety or amount of any fees charged to any of the Putnam Mutual Funds including, but not limited to, all documents produced in such investigations, all transcripts of testimony, and all communications with such governmental, administrative, or self-regulatory bodies concerning such investigations.

RESPONSE TO REQUEST FOR PRODUCTION NO. 112:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents relating to all investigations concerning "the propriety or amount of fees" (which would encompass investigations on topics unrelated to this suit), without any time limitation, or other subject matter limitation.

Subject to and without waiving the foregoing objections, Defendants will produce documents constituting communications between Defendants and the regulator(s) in connection with any investigation alleging excessive management and/or excessive 12b-1 fees during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 113:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any litigation, arbitration, or mediation proceedings involving PIM and/or PRM as parties that contained any allegation concerning excessive fees charged to any of the Putnam Mutual Funds including, but not limited to, complaints, orders, judgments and settlement agreements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 113:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 114:

All documents and tangible things in your possession, custody, or control that constitute organizational charts or any other documents describing the corporate structure of the Putnam family of entities, and/or the corporate relationships between PIM, PRM, PAC, Putnam LLC, and any of their other affiliates, parents, subsidiaries, and related entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 114:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request to the extent that it seeks information that is publicly available (e.g., information concerning the identity of corporations and entities and the legal relationships between them).

Subject to and without waiving the foregoing objections, Defendants will produce the "black book" materials provided to the trustees during the period January 1, 2002 to June 30, 2005, which contain charts responsive to this request. Defendants will also make a diligent effort to identify and produce any additional charts responsive to this request, to the extent applicable to the January 1, 2002 to June 30, 2005 time period.

REQUEST FOR PRODUCTION NO. 115:

All documents and tangible things in your possession, custody, or control that constitute organizational charts, telephone books, directories, and other documents describing the names, positions, and/or responsibilities of the individual employees of PIM and PRM at any and all times from January 1, 2002 to the present.

RESPONSE TO REQUEST FOR PRODUCTION NO. 115:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an absurd degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (as written, it seeks all documents describing "the names, positions, and/or responsibilities" of all employees of PIM and PRM from January 1, 2002 to present).

Subject to and without waiving the foregoing objections, Defendants will produce the "black book" materials provided to the trustees during the period January 1, 2002 to June 30, 2005, which contain charts responsive to this request. Defendants will also make a diligent effort to identify and produce additional organizational charts responsive to this request, if any, to the extent applicable to the January 1, 2002 to June 30, 2005 time period and to the extent that they concern management personnel.

REQUEST FOR PRODUCTION NO. 116:

All documents and tangible things in your possession, custody, or control relevant to establishing the appropriate Lipper peer group for each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 116:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents "relevant to establishing the appropriate Lipper peer group" for a fund is an exceedingly overbroad category, which seeks to place upon Defendants a burden appropriately borne by Plaintiffs (e.g., to determine what concrete categories of documents they believe are relevant to performing this analysis, and specifying them).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 117:

All documents and tangible things in your possession, custody, or control used for, or concerning, the training of any employees of Putnam entities including, but not limited to, any employee handbooks, manuals, procedure memoranda, and compliance guides.

RESPONSE TO REQUEST FOR PRODUCTION NO. 117:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; as drafted, it seeks any document used in or "concerning" the training of any employee of any Putnam entity at any time, which is a facially overbroad category of documents.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search and applicable to the period January 1, 2002 to June 30, 2005, any training manuals, and/or training guidelines applicable to portfolio management, to Operations Finance Department personnel, and to PRM personnel to the extent they relate to marketing.

REQUEST FOR PRODUCTION NO. 118:

All documents and tangible things in your possession, custody, or control that constitute resumes, curriculum vitae or other documents containing the professional and working history for anyone who served as an officer, Trustee, or member of any of the Investment Management Teams for any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 118:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks information concerning trustees, it is properly directed to counsel for the trustees. Defendants otherwise object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 119:

All documents and tangible things in your possession, custody, or control that constitute organizational or charter documents for PIM and/or PRM including, but not limited to, articles or certificates of incorporation, partnership agreements, by-laws, and related filings with the relevant secretary of state.

RESPONSE TO REQUEST FOR PRODUCTION NO. 119:

See General Objections, which are incorporated herein. Defendants further object to this request to the extent that it seeks publicly-available documents. Subject to and without waiving the foregoing objections, Defendants will produce filed formation documents for PIM and PRM.

REQUEST FOR PRODUCTION NO. 120:

All documents and tangible things in your possession, custody, or control that constitute prospectuses for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such prospectuses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 120:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks "computer databases serving as an underlying source of financial information appearing in" prospectuses, it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce all prospectuses for each fund filed during the time period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 121:

All documents and tangible things in your possession, custody, or control that constitute proxy statements for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such prospectuses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 121:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks "computer databases serving as an underlying source of financial information appearing in such prospectuses," it is incoherent (the request otherwise refers to proxy statements), vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce proxy statements for each of the funds at issue filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 122:

All documents and tangible things in your possession, custody, or control that constitute publicly issued annual, quarterly, semi-annual, or other periodic reports, or Statements of Additional Information, for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such reports or statements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 122:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is, to an absurd degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks in substance all documents relating to all of the funds at issue that have ever been publicly filed, and

all "computer databases serving as an underlying source" for all of those documents. That is senseless.

REQUEST FOR PRODUCTION NO. 123:

All documents and tangible things in your possession, custody, or control that constitute internal financial reports that provide further detail or breakdowns for the line items contained in any publicly available financial report for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 123:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, it seeks, in substance, any "internal financial report" (a vague term), relating to any "line item" in any public report, for each of the funds at issue, without any restriction as to time, without any showing of relevance, that there is no way to obtain the desired information by some less burdensome, more practicable means. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their responses to Request Nos. 29, 41, 46, 50, 55, 58, and 115. Defendants will also produce, only under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 124:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the benefits and advantages, or detriments and disadvantages, to any of The Funds of using PIM as their investment advisor as opposed to using some entity other than PIM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 124:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to the "benefits and advantages" of the funds' use of PIM as their

investment advisor is an absurdly broad category of documents, that could conceivably encompass any document bearing in any way on PIM's advisory services.

Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 125:

All documents and tangible things in your possession, custody, or control that constitute contracts or agreements as between any member of any Board of Trustees for any of The Funds on the one hand, and any Putnam entity on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 125:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its failure to specify any time period, its failure to specify any fund or set of funds, its failure to specify any "Putnam entity" or entities, and in its use of the broad phrase "any contracts or agreements" (as drafted, for example, this request would encompass any and all agreements with every interested trustee, from the beginning of Putnam's existence).

Subject to and without waiving the foregoing objections, Defendants will produce any responsive contracts located after diligent search as to the independent trustees; as to the remaining trustees, Defendants will produce documents sufficient to show their positions with Defendants during the January 1, 2002-to-June 30, 2005 period.

REQUEST FOR PRODUCTION NO. 126:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any arrangements for any member of any of the Boards of Trustees for any of The Funds to receive brokerage services at a discount.

RESPONSE TO REQUEST FOR PRODUCTION NO. 126:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce documents sufficient to show the existence of any arrangements that may be encompassed by this request, notwithstanding its vagueness.

REQUEST FOR PRODUCTION NO. 127:

All documents and tangible things in your possession, custody, or control that constitute, contracts or agreements (other than Management Contracts) between or among PIM, PRM, and/or any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 127:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; Plaintiffs can and should specify particular types of contracts. Subject to and without waiving the foregoing objections, Defendants will produce the following contracts for each of the funds at issue, to the extent the contracts were in effect during the period January 1, 2002 to June 30, 2005, as well as any other contracts effective during that same time period between defendants and any of the funds at issue: management contracts, distributor's contracts, custodian agreements, and distribution agreements.

REQUEST FOR PRODUCTION NO. 128:

All documents and tangible things in your possession, custody, or control that list, explain, characterize, or describe the nature and/or extent of any services provided by or on behalf of PIM and/or PRM to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 128:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks all documents describing any service provided by PIM and/or PRM to the funds, which conceivably encompasses an endless array of documents including such documents as internal memoranda describing day-to-day tasks performed, to trading records. Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees, which contain such description).

REQUEST FOR PRODUCTION NO. 129:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any securities clearing relationship between PIM, PRM, and any other person or entity.

RESPONSE TO REQUEST FOR PRODUCTION NO. 129:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous.

REQUEST FOR PRODUCTION NO. 130:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any internal policies, practices, or procedures purportedly followed by PIM and/or PRM when providing services under any Management Contract or pursuant to any Distribution Plan for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 130:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; as written, it appears to seek any document in any way relating to any PIM and/or PRM policy, practice, or procedure, without any further subject matter limitation, and without any time limitation. (These same objections apply equally to the reformulation of this request contained in the November 17, 2005 letter from Thomas Gallo.)

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search and applicable to the period January 1, 2002 to June 30, 2005, any training manuals, and/or training guidelines applicable to portfolio management, to Operations Finance Department personnel, and to PRM personnel to the extent they relate to marketing.

REQUEST FOR PRODUCTION NO. 131:

All documents and tangible things in your possession, custody, or control that constitute or summarize records of the daily purchases and sales of securities made on behalf of each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 131:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, this request seeks a massive volume of documents (including but not limited to daily trading records for a multi-year period for all funds at issue), without any showing by plaintiffs as to the relevance of the information contained in such documents, or as to their need to obtain whatever information they seek by this request by some less burdensome means.

Subject to and without waiving the foregoing objections, Defendants will produce all Form N30Ds and Form N-CSRs for the funds at issue filed during

the period January 1, 2002 to June 30, 2005 (these forms are filed twice annually, and each of them specifies the portfolio holdings and portfolio turnover rates of the relevant fund as of the date stated therein).

REQUEST FOR PRODUCTION NO. 132:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any legal, accounting, financial, compliance, or other audits (whether internal or external) relating to any of The Funds including, but not limited to, any opinion letters of professionals such as attorneys or accountants, and/or any information or materials provided to any auditor relating to Management Fees and/or 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 132:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 133:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any contracts or agreements by which PIM and/or PRM subcontract with or for any other person or entity to perform any services pursuant to any Management Contract or Distribution Plan with any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 133:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce responsive contracts, if any, applicable to the period January 1, 2002 to present.

REQUEST FOR PRODUCTION NO. 134:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any of the Plaintiffs in the above-captioned action, including but not limited to account opening documents and account statements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 134:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, particularly in its use of the term "[r]elate." Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce all documents located after diligent search referring to Gerald Kalbfleisch and/or the Hathaways, other than documents prepared in connection with this lawsuit, and Defendants will amend this response, as appropriate, after the Court's resolution of the pending motions.

REQUEST FOR PRODUCTION NO. 135:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to identifying all securities research or analysis used in connection with any of The Funds that was provided to PIM by any person or entity other than PIM employees, including the costs to PIM of acquiring such securities research or analysis.

RESPONSE TO REQUEST FOR PRODUCTION NO. 135:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous ("[a]ll documents" that "concern, refer or relate to identifying" third-party "securities research or analysis" is not a comprehensible category of documents). Defendants further object to this request on the basis that, to the extent they can speculate as to its meaning, it is, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 136:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate any practices, contracts, or agreements by which securities owned by or on behalf of any of The Funds are loaned to any other person or entity, including documents relevant to establishing the amount of profits realized as the result of such loans.

RESPONSE TO REQUEST FOR PRODUCTION NO. 136:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent they can speculate as to its meaning, it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, any securities lending agreement involving the funds at issue in effect during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 137:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to communications to or from shareholders of any of The Funds concerning Management Fees and/or 12b-1 Fees charged to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 137:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its demand for communications from shareholders concerning management and/or 12b-1 fees, which are patently irrelevant).

Subject to and without waiving the foregoing objections, Defendants will produce all Form 485s (which include prospectuses), and all Form N-30Ds and Form N-CSRs, for the funds at issue filed during the period January 1, 2002 to June 30, 2005. Defendants will also produce any complaints received from shareholders

during the period January 1, 2002 through June 30, 2005 concerning management and/or 12b-1 fees.

REQUEST FOR PRODUCTION NO. 138:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their existence the profits that PIM and/or PRM have realized on the Management Fees and 12b-1 Fees that they have charged, and the per unit costs and expenses that they have incurred.

RESPONSE TO REQUEST FOR PRODUCTION NO. 138:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient, for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents . . . relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; and even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning profits), rather than documents sufficient to provide Plaintiffs with that information. Defendants further object to this request on the basis that it is vague, particularly in its use of the undefined term "per unit costs and expenses."

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information concerning profits).

REQUEST FOR PRODUCTION NO. 139:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, or refer or relate to marketing and/or sales plans for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 139:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 140:

All documents and tangible things in your possession, custody, or control constituting internal financial reports or analyses pertaining to PIM, PRM, or any of The Funds including, but not limited to, budgets, forecasts, and cost accounting reports.

RESPONSE TO REQUEST FOR PRODUCTION NO. 140:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their responses to Request Nos. 29, 41, 46, 50, 55, 58, and 115.

REQUEST FOR PRODUCTION NO. 141:

All documents and tangible things in your possession, custody, or control that reflect, concern, or relate to the issues of if, whether, how, or to what extent any of the portfolio holdings or investment strategies of any of PAC's Institutional Accounts are, or have been, modeled after any of the portfolio holdings or investment strategies of any of the Putnam Mutual Funds.

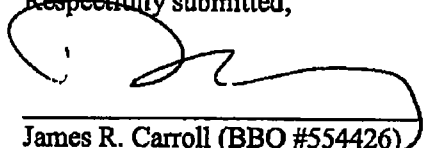
RESPONSE TO REQUEST FOR PRODUCTION NO. 141:

See General Objections, which are incorporated herein. This request does not identify specific funds or institutional accounts, is not limited to any time period, uses the vague and undefined term "modeled after," and makes an otherwise blunderbuss request for all documents that "reflect, concern, or relate to the issues of if, whether, how, or to what extent" the referenced "model[ing]" exists. As with all subject matters herein, Defendants will respond in this subject area, as appropriate, to a more specific and narrowly-tailored request. (See General Objection 2.) In

addition, Defendants suggest that plaintiffs revisit this request after having reviewed the voluminous materials that will be produced in response to the other requests, including the communications with the trustees (which contain information concerning PAC that may permit plaintiffs to appropriately narrow this inquiry).

Dated: December 5, 2005
Boston, Massachusetts

Respectfully submitted,

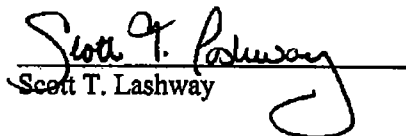


James R. Carroll (BBO #554426)
David S. Clancy (BBO #636031)
Scott T. Lashway (BBO #655268)
SKADDEN, ARPS, SLATE,
MEAGHER & FLOM LLP
One Beacon Street
Boston, Massachusetts 02108
(617) 573-4800

Certificate Of Service

I, Scott T. Lashway, hereby certify that on December 5, 2005, I caused a true copy of the foregoing Amended Response To Plaintiffs' First Set Of Requests For The Production Of Documents And Tangible Things To Defendants Putnam Investment Management, LLC And Putnam Retail Management, LLP to be served by e-mail upon counsel for Plaintiffs, David E. Marder, of Robins, Kaplan, Miller & Ciresi, L.L.P., 800 Boylston Street, Suite 2500, Boston, Massachusetts 02199, Thomas Gallo, of Robins, Kaplan, Miller & Ciresi, L.L.P., 2600 One Atlanta Plaza, 950 East Paces Ferry Road, N.E., Atlanta, Georgia, 30326-1119, and Thomas R. Grady, Ackerman, Link & Sartory, P.A. 222 Lakeview Avenue, Suite 1250 - Esperante, West Palm Beach, Florida 33401.

Dated: December 5, 2005



Scott T. Lashway